Contents: Volume 11

JANUARY

Rapid Determination of Lead in Urine by Ion Exchange	
Donald T. Forman and James E. Garvin	1
Micromethod for the Estimation of Plasma Fibrinogen	
Robert G. Martinek and Roland E. Berry	10
Evaluation of a Photoelectric Clot Timer for the Performance of Prothrombin	
Times Seymour Winsten	17
Adaptation of Babson's Method for the Determination of Serum Glutamic Oxala-	
cetic Transaminase in the Clinical Laboratory	20
Masaki Furuno and Albert Sheena	23
The Basis for Elevation of Serum Glutamic Pyruvic Transaminase Levels in Serum Stored on Clots W. B. Elliott and Harold Rosamilia	00
Stored on Clots W. B. Elliott and Harold Rosamilia A Simple, Rapid Method for Paper Chromatography of Barbiturates	29
William J. Waddell	37
A Rapid Modification of the Cephalin Cholesterol Flocculation Test	O1
Arthur A. Rosenberg, Lucille G. Eimann, and John O'Leary	40
Air-Cooled Extractors and Their Use in Determination of Cholesterol	-
Frederic E. Holmes	44
New Method for Determination of Alkylating Agents in Biologic Fluids	
Yulin L. Tan and Donald R. Cole	58
An Evaluation of Technics for the Separation and Estimation of Plasma Fibrino-	
gen Jesse F. Goodwin	63
Use of a Screening Procedure for Blood Urea Nitrogen R. D. McNair	74
Vacuum Manifold for Use of Erythrocyte Uptake of T ₃ Technic	
E. H. Cranswick, D. Allen, T. B. Cooper, and T. Piti The Clinical Chemist	77 80
Clinical Chemistry and Public Service John G. Reinhold	84
	OI
FEBRUARY: PART 1	
A Micro Method for Serum Cholinesterase Phil J. Garry and Joseph I. Routh	91
A Saccharogenie Method for Estimating Electrophoretic and Chromatographic	
Distribution of Human Serum Amylase Ichiro Ujihira, Ronald L. Searcy,	07
J. Edward Berk, and Shinichiro Hayashi Determination of Urea in Blood and Urine with Diacetyl Monoxime-Glucuronolac-	97
tone Reagent Tsutomu Momose, Yosuke Ohkura, and Jun Tomita	113
Automated Fluorometric Method for Determination of Serum Calcium John B. Hill	122
Electrophoresis of Glutamic Oxalacetic Transaminase in Serum, Beef Heart, and	
Liver Homogenates on Cellulose Acetate	
William C. Romel and S. Joseph LaMancusa	131
Simultaneous Determination of Barbiturates and Salicylates by Ultraviolet Spec-	
trophotometry Solveig Bjerre and C. J. Porter	137
Centrifuging, Storing, and Quantitative Dispensing of Micro Samples; An Im-	4.55
proved Technic Eva Wittgenstein and Kenneth W. Rowe, Jr.	155
Book Reviews The Clinical Chemist	158 159
The Officea Chemist	109

FEBRUARY: PART 2—SPECIAL SUPPLEMENT ISSUE

Papers Presented as Part of the Symposia Program of the Fifth International Congress on Clinical Chemistry

Preface	Harold D. Appleton	163
Introductory Remarks	Oliver H. Gaebler	165
President's Report	Monroe E. Freeman	166
Lipid Metabolism		
Metabolism and Function of Phospholipids and Sphingolipi Prof. E. J. King Memorial Symposium on Enzymes		171
Prof. E. J. King Eulogy	C. P. Stewart	194
Recent Advances in Electron Transfer and Oxidative Phosp	horylation	
	Youssef Hatefi	198
Hormonal Regulation of Enzyme Activity		
K. Lemone Yielding, Gordon M. Tomkins, a	4.0	213
	Hess and Karl Brand	223
The Clinical Application of Enzyme Activity Measurements		239
Special Reference to Current Problems Discussion of the Symposium on Enzymes in Clinical Chemis	J. H. Wilkinson	247
		-11
Physical Methods in Clinical Chemi		
The Analysis of Biological Materials by Atomic-absorption		
100 1 0 0 1 0 1 0 1 0 1 1 0 1 1 1 1 1 1	J. B. Willis	251
Affinity of Organic Compounds for Free Electrons with The		259
Polarographic Reactions of Plasma Proteins and Their Clin	cis and J. E. Lovelock	209
Totalographic Reactions of Flashia Proteins and Their Cin	Otto H. Müller	270
Recent Developments in X-Ray Spectrometry as Applied		210
and the second s	Samuel Natelson	290
Metabolism		
Disorders of Bilirubin Metabolism: The Warner-Chilcott Le	ecture G. H. Lathe	309
Changes in Liver Metabolism Induced by the Poisons of An		0
and the second s	Otto Wieland	323
Metabolism of Glycoproteins	Richard J. Winzler	339
Standardization of Nomenclature in Clinical Chemistry: R		
cussion	Alan Mather	348
Ti'ed T		
Fifth International Congress on Clinical Chemistry, 1963 Commission and Committees		354
Members		355
Archivers		()()()
MARCH		
Enzymatic Determination of Glucose in Urine by Automa	tion Following Rapid	
Removal of Inhibitors by Ion-Exchange Resin J. E. Lo		367
Determination of Microgram Quantities of Inorganic Boron		
	wski and Lee E. Farr	378
Analog Computation of Electrophoresis Patterns		
Lawrence A. Lotito, Donald K. McKa		386
Porphyrins and Chlorins from a Congenital Porphyria Pati		005
	d Edith Ju-Hwa Chu	395
Improved Instrumentation for the Determination of Prothro Rex E. Sterling, Alan A. Wilcox, Arnold G. Ware, a		409
acces as the ring, him his it there, him the it in the, th	reer are the ff when to the little it	T. See.

Coulometric Determination of Protein Nitrogen: Application to direct titration of Kjeldahl digests	
Gary D. Christian, Edward C. Knoblock, and William C. Purdy Method for Tissue Hemoglobin Analysis	413
Daniel Andersen and William C. Shoemaker Comparison of a Colorimetric (Automated) with an Enzymatic (Manual) Uric	422
Acid Procedure John B. O'Sullivan, John O'S. Francis, and Nathan Kantor	427
Identification of Barbiturates in Blood by Paper Chromatography Eugene Fastlich, Bernard Searle, and Bernard Davidow	436
Evaluation of a Dye-binding Method for Determination of Serum Albumin Robert G. Martinek	441
Book Reviews	448
The Clinical Chemist	450
APRIL	
W 1 C C C C C C C C C C C C C C C C C C	4==
Microdetermination of Proline in Serum G. K. Summer and N. O. Roszel Polarographic Determination of Traces of Gold in Blood and Serum	455
Gary D. Christian Estimation of Urinary 5-Hydroxyindoleacetic Acid by Paper Chromatography—	459
A Sensitive Method Helen K. Berry and Indira Krupanidhi	465
An Enzymatic Method for Glucose Quantitation in Normal Urine Daniel M. Keller Direct Spectrophotometric Determination of Albumin in Human Serum	471
F. Lee Rodkey Separation and Determination of the Total Globulins of Human Serum	478
F. Lee Rodkey Evaluation of a Modification of the Zak-Kiliani Reaction for Determination of	488
Serum Cholesterol Robert G. Martinek Measurement of Serum Glutamic Oxalacetic Transaminase	495
Andrew C. Peacock, L. Thomas Byrd, and A. Hope Sule	505
Closed-System Apparatus for Aeration-Diffusion: Application to Determination of Blood Ammonia Frederic E. Holmes	512
A New Indicator for the Chelometric Measurement of Calcium in Serum and Urine Gloria Catledge and Homer G. Biggs	521
Immunoglobulin Components of "Gamma" Globulin in Human Serum	
Virginia E. Trevorrow, Deborah Merrill, and Henry N. Claman Scientific Notes	527
Reliability of Hemoglobin Values Obtained with Ferricyanide-Cyanide Reagents Subjected to Freezing Temperatures	
Eugene W. Rice and Cynthia Z. Lapara An Improved Colorimetric Transaminase Assay	531
Arthur L. Babson and George E. Phillips	533
Book Reviews	535
The Clinical Chemist	538
MAY	
An Automated Procedure for Blood Phenylalanine John B. Hill,	
George K. Summer, Murray W. Pender, and Norris O. Roszel Serum Bile Acids in Patients with Liver Disease	541
Samuel J. Levin and Morton K. Schwartz Relative Rates of Color Development of 17-Keto- and Ketogenic Steroids in the	547
Zimmerman Reaction John H. C. Liu A Simple and Rapid Method for Estimating 3,4-Dihydroxyphenethylamine (Dopamine), 3,4-Dihydroxyphenylalanine (Dopa), and Homovanillic Acid (HVA)	554
with "Two-Solutions Paper Electrophoresis" F. Eichhorn and A. Rutenberg	563

On the Nature of the Inhibitor of Urinary Alkaline Phosphatase	
Stephen D. Hilliard, James F. O'Donnell, and Steven Schenker A Pituitary Gonadotropin Assay Based on Absorption by Attapulgite	570
William B. Watson and R. William Knouse Quantitation of Serum Hemoglobin-Binding Capacity Using Cellulose Acetate	575
Membrane Electrophoresis C. R. Valeri, J. C. Bond, K. Fowler, and J. Sobucki	581
A Method for the Rapid Hydrolysis of Urinary Glucuronoside Metabolites of Testosterone John R. Kent, Allen B. Rawitch, and Frederick Peacock	589
Data Processing in Clinical Chemistry Andrew C. Peacock, Sylvia L. Bunting, Donna Brewer, Ernest Cotlove, and George Z. Williams	595
Book Reviews	612
The Clinical Chemist	613
JUNE	
The Determination of Thiamine in Small Amounts of Whole Blood and Serum by A Simplified Thiochrome Method Than Myint and Harold B. Houser Automated and Manual Direct Methods for the Determination of Blood Urea	617
Walton H. Marsh, Benjamin Fingerhut, and Henry Miller Simplified Preparation of Blood Hemolysates for Hemoglobin Electrophoresis	624
R. Quentin Blackwell and Jeanette Tung-Hsiang Huang Operation of the Technicon Flame Photometer with Natural Gas: Use in the de- termination of serum lithium and the semi-micro analysis of serum sodium and	628
potassium Donald B. Nevius and Gerard F. Lanchantin	633
Automated Determination of Serum Iron Bennie Zak and Emanuel Epstein Procedure for Detecting Atypical Serum Cholinesterase Using o-Nitrophenylbu-	641
tyrate as Substrate R. B. McComb, R. V. LaMotta, and H. J. Wetstone	645
The Clinical Stability of Serum Cholinesterase Activity Howard J. Wetstone and Rudolph V. LaMotta	653
Scientific Notes:	000
An Automated Method for Urine Creatinine Which Does Not Require a Dialyzer Module Samuel Pino, Joseph Benotti, and Henry Gardyna	664
Book Reviews The Clinical Chemist	667 669
	000
JULY	
Purification and Analysis of Bilirubin John T. Clarke Second Mitter and Libe W. Translated	681
Use of Bilirubin Standards Samuel Meites and John W. Traubert A Coulometric Determination of Urea Nitrogen in Blood and Urine	691
Gary D. Christian, Edward C. Knoblock, and William C. Purdy An Improved Method for the Determination of Guanase in Serum or Plasma	700
Allen C. Hue and Alfred H. Free Determination of Serum Calcium by Means of Sodium Alizarinsulfonate	708
Harold V. Connerty and Anglis R. Briggs	716
Stability of Cholinesterase in Frozen Plasma $$	729
Scientific Program: 17th National Meeting of the American Association of Clinical Chemists	733
AUGUST	
Determination of Free Fatty Acids in Plasma by a Colorimetric Procedure: An	
Appraisal of the Method and Comparison with Other Technics	741

An Automated Fluorometric Method for Determination of Lactic Dehydrogenase in Serum Lewis Brooks and Harry G. Olken	748
"True" Creatinine Chromogen Determination in Serum and Urine by Semi- automated Analysis E. Polar and J. Metcoff	763
Separation of Erythrocytes of Different Ages Daniel J. O'Connell, Carmine J. Caruso, and Martin D. Sass	771
Scientific Notes	111
Serum Phenylalanine Levels in Phenylpyruvic Oligophrenia	700
Book Reviews Guy Nadeau and Benoit Fortin	782 784
Abstracts of Papers from Scientific Sessions: 17th National Meeting of the	104
American Association of Clinical Chemists	786
The Clinical Chemist	832
SEPTEMBER	
Determination of Homogentisic Acid in Urine	
Ramon E. Stoner and Ben B. Blivaiss	833
Determination of Glucose in Biologic Fluids with an Automated Enzymatic Pro-	
cedure Michael Robin and Abraham Saifer	840
Comparison of Two Current Colorimetric Procedures for Determination of Serum	
Glutamic Oxaloacetic Transaminase	846
R. M. Nakamura, R. Magsaysay, and G. M. Kunitake Determination of Calcium in Urine by the Chloranilate Method	040
William W. Webster and William H. Kern	855
A Rapid Saccharogenic Method for the Determination of Serum Amylase	
Benjamin Fingerhut, Rocco Ferzola, Alfred Poock, and Walton H. Marsh	862
A New Method for the Continuous Monitoring of Blood Glucose by Measurement	
of Dissolved Oxygen Arnold Henry Kadish and David A. Hall	869
An Automated p-Nitrophenylphosphate Serum Alkaline Phosphatase Procedure	
for the AutoAnalyzer Stanley Morgenstern, Gerald Kessler, Joseph Auerbach, Richard V. Flor, and Bernard Klein	876
An Automated p-Nitrophenylphosphate Serum Alkaline Phosphatase Procedure for	010
the "Robot Chemist" Stanley Morgenstern, Gerald Kessler,	
Joseph Auerbach, Richard V. Flor, and Bernard Klein	889
Book Reviews	898
The Clinical Chemist	899
OCTOBER	
Determination of 3-Methoxy-4-Hydroxymandelic Acid (VMA) in Urine by Thin- Layer Chromatography J. S. Annino, M. Lipson, and L. A. Williams	905
Phenothiazine Derivatives in Urine: "False Negative Results" With the Forrest	300
Color Test (FPN), and a Method for Their Elimination K. N. Campbell	914
Serum Glycoproteins and Proteins after Fractures	
M. Hertzberg, Z. Oberman, S. L. Weissman, and H. Z. Herold	920
A New Method for the Determination of Nitrofurantoin in Urine	
John D. Conklin and Richard D. Hollifield	925
Determination of Total Iodine in Urine, Stool, Diets, and Tissue	932
Joseph Benotti, Norbert Benotti, Samuel Pino, and Henry Gardyna Evaluation of a Cellulose-Acetate Electrophoresis System for Serum Protein Frac-	304
tionation Alex Kaplan and John Savory	937
Stabilization and Preservation of Serum Prostatic Acid Phosphatase Activity	
Richard P. Doe, George T. Mellinger, and Ulysses S. Seal	943

731	
Fluorometric Measurement of Creatine Kinase Activity Sylvan M. Sax and John J. Moore	951
An Automated Technic for the Assessment of Thyroid Status, Based upon the Binding of I ¹³¹ -Triiodothyronine by Serum	CO.J.L.
A. C. Pollard, E. S. Garnett, and C. Webber	959
Scientific Notes	
Simultaneous Determination of Sodium, Potassium, Chloride, Urea Nitrogen, and Glucose from Capillary Blood	
Morris London and Jesse H. Marymont, Jr.	968 970
Book Reviews The Clinical Chemist	970
NOVEMBER	
A Rapid Micro Method for Determination of Ascorbic Acid in Urine by Ferric Reduction Leon S. Vann	979
An Automated Trihydroxyindole Procedure for the Differential Analysis of Cate- cholamines Robert L. Robinson and Daniel T. Watts	986
cholamines Robert L. Robinson and Daniel T. Watts Automated Determination of Acid Phosphatase	900
Bernard Klein, Joseph Auerbach, and Stanley Morgenstern	998
Evaluation of Hydrolytic Products of 17-Ketosteroids by Means of Gas-Liquid Chromatography	
L. P. Cawley, B. O. Musser, W. Faucette, S. Beckloff, and H. Learned The Effect of Methenamine Mandelate (Mandelamine) on Determination of Uri-	1009
nary Estriol Joseph C. Touchstone, Maria Stojkewycz, and Kaighn Smith	1019
Evaluation of Gas-Liquid Chromatography in Assays for Blood Volatiles Alan Mather and Angel Assimos	1023
Scientific Notes	1020
A Chart for Concentrational Calculations in Quality Control	
Ralph E. Thiers and Robert R. Cole	1036
Blood Volume Error Detector	1040
Joseph H. Boutwell, Jr., and George H. Stewart The Clinical Chemist	1040
	20.20
DECEMBÉR	
An Automated Method for the Determination of Sulfonamides in Plasma	
H. B. Falk and R. G. Kelly	1045
A Direct-Reading Bilirubinometer Incorporating Hemolysis and Turbidity Cor-	1051
rection Sanford H. Jackson Electrophoretic Fractionation of Serum Glycoproteins on Cellulose Acetate	1051
R. L. Kelsey, T. P. deGraffenried, and R. C. Donaldson	1058
A Simple Method for the Quantitative Determination of N-Acetyl-p-Aminophenol (APAP) in Urine **Richard M. Welch and A. H. Conney**	1064
Scientific Notes	
Simple Method for Concentration of Cerebrospinal Fluid for Protein Electro-	
phoresis Stanley Burrows	1068
Books Received	1070
The Clinical Chemist	1071
Index	1089

